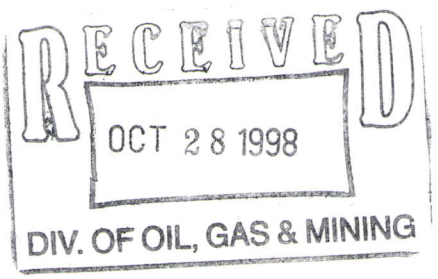
M/049/032



October 26, 1998

Mr. D. Wayne Hedberg
Permit Supervisor
Minerals Regulatory Program
Department of Natural Resources
Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
P.O. Box 145801
Salt Lake City, Utah 84114-5801

Subject: Response to Comments – Valley Asphalt Inc's Ekins East Quarry (M/049/032), Utah County

Dear Mr. Hedberg:

The following is a response to DOGM's comments on Valley Asphalt's Notice of Intent to commence large mining operations in Ekins East Quarry, Utah County. Where there is a contradiction, the following information supercedes the information provided in the original application. This submittal also supercedes the response to DOGM's comments from Wiser Company. The three phases shown in the earlier submittal has been replaced by a single phase. Please contact me at 485-2270 if you have further questions. Thanks for your assistance.

Sincerely,

Western Aggregates Holding Corporation

Arjun Ram, P.E.
Civil/Environmental Engineer

M/049/032
RECEIVED Oct. 28, 1998

RESPONSE TO DOGM'S COMMENTS

105.1 - Response: The road area inside the pit has been included in the disturbed area acreages shown in the Reclamation Treatments Map. The pit access road has been paved and will be left in place because the owner plans to use the road for a residential subdivision, which is an intended post-mining land use. Other unpaved roads inside the pit are in place and will be reclaimed.

105.2 - Response: A Mine Plan drawn to a scale of 1:200 has been provided. All disturbed features have been included in the Reclamation Treatments Map.

105.3 – Response: Two cross sections have been provided in the Mine Plan. The spoils area will be smoothened out and revegetated. A definite plan for the spoils area is not known at this time. It depends on the amount of overburden generated and the amount of such material that can be used as fill, etc. The growth media stored in the spoils area will be used to revegetate the spoils area itself and the rest of the pit. A Reclamation Treatments Map has been provided.

Reclamation Treatments Map: The potential areas to be disturbed are listed below:

Berm/spoils Area: 21.1 acres – Includes the actual areas of the berm, growth media stockpile, and overburden stockpiles. Any excess soil on the berm will be leveled and a minimum of 6" of topsoil will be placed in areas where topsoil has been stripped. Any compacted areas will be ripped with a dozer. The berm/spoils area will be seeded in accordance with the seed mix submitted in the original application.

Crushing, Concrete, and Asphalt Plant Yard Area: 8.2 acres – Includes the area where the crushing spread, concrete plant and the asphalt plant are set-up. A minimum of 6" of topsoil will be placed in areas where top soil has been stripped. Any compacted areas will be ripped with a dozer. The yard area will be seeded in accordance with the seed mix submitted in the original application.

Excavation Area: 79.8 acres – Includes the area that will be excavated. A minimum of 12" of topsoil will be placed in the excavated areas. The excavation area will seeded in accordance with the seed mix submitted in the original application.

Sediment Pond: 1.0 acre – The pond will be filled with at least 6" of topsoil and adequate gravel to prevent any stagnation of water. The pond area will then be seeded in accordance with the seed mix submitted in the original application.

Access Road Area: 3.7 acres – A variance from revegetation is requested because the owner desires to maintain the road to access future development in the area.

High Wall/Bench Area: 7.6 acres – Includes the area that will be excavated near the south and east edges of the property. A variance is requested to exempt this area from

revegetation because of the difficulty in the implementation of the various steps necessary for successful revegetation and subsequent care until a viable plant community are established.

106.2 – Response: A typical highwall design is shown in the Mine Plan. The mine will have 65' highwalls and 20' benches. The effective slope will be less than 45 degrees. Typical equipment to be operated at the site are as follows:

Material Processing Equipment
Crushers
Screens
Conveyor belts and stackers
Mobile equipment such as loaders, dozers, etc.
Processed material stockpiles

Asphalt Plant Equipment
Asphalt plant drum drier
Storage bins
Fuel storage tanks inside secondary containment
Asphalt loadout silo

Description of Processes

Aggregate Production:
The overburden is either dozed or cleared by drilling and blasting. The overburden is then moved to the spoils area in pit haul trucks or moved with a loader (for short distances). The aggregate material is drilled, blasted and transported to the processing plant where it is loaded into a feeder. The aggregate material is then crushed and screened into various products by a combination of crushers, screens and conveyor belts. The product is stored in stockpiles. The actual products produced will depend on the market demand. The material from the stockpiles is then loaded into trucks and hauled to project sites or loaded in the asphalt plant silos.

Concrete Production:
The aggregate material is loaded into bins and conveyed into a weigh. The aggregates and water are then loaded into trucks, where it is mixed and transported to the job site.

Asphalt Production:
The aggregate material is loaded into the bins and fed into a drum drier to remove the moisture. Asphalt oil is then injected and mixed with aggregate to produce asphaltic concrete. The asphaltic concrete is loaded into a silo from where it is loaded into trucks and transported into job sites.

106.3 - Response: The revised Mine Plan has only one phase which will be mined through the life of the mine estimated at about 50 years. The modified reclamation cost estimate is consistent with the new mine plan.

106.4 – Response: The area to be excavated consists of limestone aggregate. The overburden thickness is about 12" to 18" and consists of soil, pebbles, cobbles and boulders. Any top soil recovered will be stockpiled in the spoils area and used for reclamation. The rest of the overburden will be used either as fill material on site or transported to job sites and used as base or fill material.

106.6 – Response: Signs will be posted on the stockpile reading "Topsoil for Reclamation – Do Not Disturb." The signs will have black lettering on a yellow background. The dimension will be 2' x 4' and they will be attached to a post 5' above the ground. The top soil will be stockpiled in the berm area as shown in the Reclamation Treatments Map. The top soil will be vegetated with the following vegetation mix:

Piute Orchard Grass @ 1lb/acre
Alfalfa @ 1.5 lb/acre
Small Burnett 2 @ lb/acre
Thickspike Wheat @3 lb/acre

106.8 – Response: Please refer to the response to 106.4.

106.9 – Response: The overburden will either be used as fill on site or stored in the spoils area and sold. Any overburden left behind in the spoils area will be smoothened and revegetated. The amount of overburden stored (including topsoil) in the spoils area at a given time is not expected to exceed 350,000 cubic yards.

A drawing and location of the sediment pond has been provided in the attached Mine and Reclamation Map. The mine will be graded to allow most of the run-off water to drain to the pond. The maximum 10-year 24-hour storm from 1988-1997 at Pleasant Grove (in Utah County) was 1.36" (September 7, 1991). The approximate drainage area at any one time is estimated to be about 30 acres. Assuming that 50% (excluding infiltration, etc.) of all the water that falls in the drainage area makes it to the detention pond, a total capacity of approximately 1.7 acre-feet [1.36"/(12"/feet) x 30 acres x 0.5] is required. A simple detention basin will be progressively constructed which can approximately hold up to 2-acre feet of water/sediment. If this storage capacity is found to be inadequate from experience, then the capacity will be increased adequately by increasing the size and/or depth of the pond. The detention pond will be lined with gravel to promote water drainage/infiltration. The water will be used or allowed to evaporate. The sediment will be skimmed from the bottom of the pond and used or disposed. There are no perennial streams that will be affected as a result of the excavation. The probability of water run-off from the excavation site resulting in any flooding of adjacent areas and causing damage is very low.

107.1 – Response: Warning signs will be placed every 100 feet above highwall areas to deter pedestrians and vehicles from approaching the edge.

107.2 – Response: No existing streams will be diverted. The storm water that collects in the pit will be directed to the detention pond shown in the Reclamation Treatments Map.

109.1 - Response: The excavation at this quarry will not result in a "hole" in the ground. The operation will consist of mining the limestone hills to a base level. The lowest point of quarrying activity will be at an elevation of 4925 feet. The elevation at the pit entrance from Highway 6 is 4703 feet. The existing well on the property has a surface elevation of 5044 feet. The recorded depth of the well is 400 feet, indicating that water was encountered at an elevation of 4644 feet. Therefore, the water level is 281 feet below the base elevation to which excavation will occur. Although, there is adequate buffer, potential groundwater contamination from fuel storage tanks that can possibly leak will be prevented by building secondary containment structures around the tanks.

109.4 – Response: A typical highwall design is shown in the Mine Plan. The mine will have 65' highwalls and 20' benches. The effective slope will be less than 45 degrees. Therefore, a variance for higher slopes is not requested.

110 – Response: The potential areas to be disturbed are shown in the Reclamation Treatments Map. The treatment to be received in each of the areas is explained below:

Berm/spoils Area: 21.1 acres – Includes the actual areas of the berm, growth media stockpile, and overburden stockpiles. Any excess soil on the berm will be leveled and a minimum of 6" of topsoil will be placed in areas where topsoil has been stripped. Any compacted areas will be ripped with a dozer. The berm/spoils area will be seeded in accordance with the seed mix submitted in the original application.

Crushing, Concrete, and Asphalt Plant Yard Area: 8.2 acres – Includes the area where the crushing spread, concrete plant and the asphalt plant are set-up. A minimum of 6" of topsoil will be placed in areas where top soil has been stripped. Any compacted areas will be ripped with a dozer. The yard area will be seeded in accordance with the seed mix submitted in the original application.

Excavation Area: 79.8 acres – Includes the area that will be excavated. A minimum of 12" of topsoil will be placed in the excavated areas. The excavation area will seeded in accordance with the seed mix submitted in the original application.

Sediment Pond: 1.0 acre – The pond will be filled with at least 6" of topsoil and adequate gravel to prevent any stagnation of water. The pond area will then be seeded in accordance with the seed mix submitted in the original application.

Access Road Area: 3.7 acres – A variance from revegetation is requested because the owner desires to maintain the road to access future development in the area.

High Wall/Bench Area: 7.6 acres – Includes the area that will be excavated near the south and east edges of the property. A variance is requested to exempt this area from revegetation because of the difficulty in the implementation of the various steps necessary for successful revegetation and subsequent care until a viable plant community are established.

110.1 – Response: It is acknowledged that the current land use also includes wildlife habitat.

110.2 – Response: The paved road that is hatched in green in the Reclamation Treatments Map is to remain after the excavation is complete. The pit areas and highwalls/benches will be reclaimed in accordance with the above response provided under Section 110. The slope in the spoils area will not exceed 3H:1V. The effective slopes of the highwalls will be maintained at less than 45 degrees. The detention basin will be filled and revegetated. The excess overburden material (if any) present after completion of excavation in the spoils area will be smoothened, a minimum of 12" of top soil will be placed in areas where the topsoil has been stripped and the area will be revegetated in accordance with the plant mix proposed in the original application. The amount of topsoil to be used in reclamation has been clarified in the above response under Section 110. The overburden to be moved to the spoils area does not consist of construction debris from demolition activities or tailings. Only naturally occurring materials such as topsoil and excess gravel will be moved to the spoils area. All compacted areas will be deep ripped with a dozer before revegetation.

110.3 – Response: The access road has an area of 3.7 acres.

111.1 – Response: Appropriate warning signs will be posted at a spacing of 100 feet along highwalls in the interest of public safety. Access to the mine will be controlled by a locked gate after operations cease. The effective highwall slopes will not exceed 45 degrees. The owner may develop the land into a residential subdivision after implementation of further safety measures.

111.2 and 111.3 – Response: No natural channels are proposed to be disturbed by mining. The erosion control details provided will be used at specific locations above highwalls with high erosion potential after finished sloped are achieved.

111.6 – Response: The slopes in the spoils area will not exceed a slope of 3H:1V.

111.7 – Response: The highwalls will have an effective slope of less than 45 degrees. Therefore no variance has been requested for the highwall slope.

112 – Response: As explained above, the highwalls will have an effective slope of less than 45 degrees. Therefore, no variance has been requested for the highwall slope.

113- Response: The revised calculations are attached.

RECLAMATION SURETY ESTIMATE (o:/data/bonding/mine-bnd.wb2)

Company Name last revision

Valley Asphalt, Inc. - Ekins East page "ESTIMATE"

Utah County

Prepared by Utah State Division of Oil, Gas & Mining

-This estimate is based on the reclamation plan in the NOI dated June 26, 1997, revised October 26, 1998
-All structures & facilities to be dismantled, demolished & removed from the site as salvage or debris
-All concrete foundations & pads are to be crushed & removed from the site as product or debris
-Top soil from Berm area will be spread and additional top soil will be trucked in as needed
- A minimum of 6" of top soil to be spread in the berm area and operations area and then seeded
- A minimum of 12" of top soil to be spread in the pit bottom area and then seeded
- Paved road will be left in place after the mining operations cease

Note: actual unit costs may vary according to site conditions ***last unit cost update*** ***08/18/97***

-Amount of disturbed area which will receive reclamation treatments = 110.1 **acres**

-Estimated total disturbed area for this mine = 121.4 **acres**

Activity	Quantity	Units	$/unit	$
Safety gates, signs, etc. (mtls & installation)	20	sum	200	4,000
Demolition of buildings & facilities	10,000	CF	0.23	2,300
Debris & equipment removal - trucking	20	trips	48	960
Debris & equipment removal - dump fees	370	CY	6	2,220
Debris & equipment removal - loading trucks w/FE loader	8	hours	166	1,328
Demolition & debris removal - general labor	16	hours	15	240
Regrading facilities areas (est 50% of facilities area)	4.1	acre	415	1,701
Regrading waste dump slopes	0	CY	0.32	0
Ripping waste dump tops	0.0	acre	363	0
Ripping "facilities area"	8.2	acre	570	4,674
Ripping mining area	79.8	acre	570	45,486
Ripping pit access roads	0.0	acre	570	0
Creating safety berms or barriers around highwalls	250	LF	0.1	25
Ripping access roads - dozer	0.0	acre	570	0
Regrading access roads - dozer	0.0	acre	415	0
Sidecast mtl replacement on steep roads- trackhoe	0	LF	0.85	0
Surface drainage restoration or construction	250	LF	0.1	25
replacing topsoil - dozer	153,186	CY	0.32	49,020
replacing topsoil - scraper	153,186	CY	0.32	49,020
replacing topsoil -truck, FE loader & dozer	153,186	CY	0.32	49,020
Mulching (2 ton/acre alfalfa)	0.0	acre	160	0
Composted manure (10 ton/acre)	0.0	acre	800	0
Fertilizing (100 lb/acre diammonium phosphate)	0.0	acre	90	0
Broadcast seeding (~20 lb/acre)	110.1	acre	170	18,717
Drill seeding (~13 lb/acre)	0.0	acre	220	0
Hydroseeding	0.0	acre	800	0
General site cleanup & trash removal	5.0	acre	50	250
Equipment mobilization	3	equip	1000	3,000
Reclamation Supervision	10	days	356	3,560
		Subtotal		235,545
10% Contingency				23,555
		Subtotal		$259,100
Escalate for 5 years at 2.24% per yr				30,349
		Total		$289,448
		Rounded surety amount in yr 2002-$		**$289,400**
Average cost per disturbed acre =	$2,384			